

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO. 4458		
10/643,631 08/18/2003		Janet A. Tamada	ANMS-128US			
23122 7	590 03/01/2006		EXAM	EXAMINER		
RATNERPRESTIA			GITOMER, RALPH J			
P O BOX 980 VALLEY FOR	GE, PA 19482-0980		ART UNIT PAPER NUMB			
VIIBBBI TON	102, 111 17102 0700		1655			

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

			Application N	0.	Applicant(s)			
Office Action Summary			10/643,631	TAMADA ET AL.				
			Examiner		Art Unit			
			Ralph Gitomer	•	1655			
Period fo	The MAILING DATE of this commu or Reply	nication appe	ears on the co	ver sheet with the c	orrespondence ad	dress		
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR CHEVER IS LONGER, FROM THE MISSIONS OF time may be available under the provision SIX (6) MONTHS from the mailing date of this comportion of period for reply is specified above, the maximum set or reply within the set or extended period for reply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b).	MAILING DA's of 37 CFR 1.136 munication. tatutory period will y will, by statute, or	TE OF THIS (6(a). In no event, he Il apply and will exp cause the application	COMMUNICATION DWEVER, may a reply be tin ire SIX (6) MONTHS from In to become ABANDONE	N. nely filed the mailing date of this cool (35 U.S.C. § 133).			
Status								
1)⊠	Responsive to communication(s) file	ed on <i>06 Jar</i>	nuary 2006					
	This action is FINAL . 2b)⊠ This action is non-final.							
· · · ·								
٠,۵	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Dispositi	on of Claims							
4)🖂	Claim(s) 1-32 is/are pending in the	application.						
-	4a) Of the above claim(s) <u>22-32</u> is/are withdrawn from consideration.							
	Claim(s) is/are allowed.							
	Claim(s) <u>1-21</u> is/are rejected.							
-	Claim(s) is/are objected to.							
·	Claim(s) are subject to restri	ction and/or	election requi	rement.				
Applicati	on Papers							
9)[]	The specification is objected to by the	ne Examiner						
•	The drawing(s) filed on is/are			biected to by the I	Examiner			
,	Applicant may not request that any obje							
	Replacement drawing sheet(s) including			-	• •	R 1 121(d)		
11)	The oath or declaration is objected t	_	•	• • • •		` ,		
Priority ι	ınder 35 U.S.C. § 119							
	Acknowledgment is made of a claim ☐ All b)☐ Some * c)☐ None of:	Ţ.	•)-(d) or (f).			
	1. Certified copies of the priority	documents	have been re	ceived.				
	2. Certified copies of the priority			• •				
	3. Copies of the certified copies	of the priorit	ty documents	have been receive	ed in this National	Stage		
	application from the Internation	onal Bureau	(PCT Rule 17	.2(a)).				
* 5	see the attached detailed Office action	on for a list o	f the certified	copies not receive	ed.			
Attachmen	t(s)							
	e of References Cited (PTO-892)		4) [Interview Summary				
	e of Draftsperson's Patent Drawing Review (I nation Disclosure Statement(s) (PTO-1449 o		5) Г	Paper No(s)/Mail Da)-152)		
	r No(s)/Mail Date	i i: 10/30/00)		5) Notice of Informal Patent Application (PTO-152)6) Other:				

Art Unit: 1655

Applicant's election without traverse of Group I, claims 1-21, in the reply filed on 1/6/06 is acknowledged. The IDS received 10/17/03 has been considered. Please inform the examiner of any related applications, pending, allowed or abandoned.

A reading of the specification reveals the point of novelty of the hydrogel resides in a high concentration of the phosphate buffer.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1655

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Burson, Burson and Abraham.

Each of the references teach sufficient phosphate buffer to maintain the desired pH range of 6-8. The present claims include no functional limitations regarding the concentration of the phosphate other than the buffer as a whole has a concentration range of 125-500 mM in the final composition.

Burson (6,615,078) entitled "Methods and Devices for Removing Interfering Species" teaches in column 12 lines 42-56, a hydrogel containing phosphate buffer at a pH of 6-8. In column 17 lines 26-29, the gel contains sodium phosphate monobasic 2.07 wt%, sodium phosphate dibasic 0.20 wt%. Other similar amounts are shown in column 17. See the claims.

Burson (US 2005/0170448) entitled "Methods of Manufacturing Glucose Measuring Assemblies with Hydrogels" teaches on page 9 paragraph 96, gel containing 0.22 wt% sodium phosphate monobasic, 2.25 wt% sodium phosphate dibasic. Another formulation contains 0.32 wt% sodium phosphate monobasic, 2.07 wt% sodium phosphate dibasic. A third formulation contains 0.26 wt% sodium phosphate monobasic, 2.17 wt% sodium phosphate dibasic

Abraham (US 2004/0062759 A1) entitled "Hydrogel Formulations for Use in Electroosmotic Extraction and Detection of Glucose" teaches on page 10 Table 2 a hydrogel containing 0.5 wt% phosphate buffer. On page 11 Example 6 the gel contains 0.26 g sodium dibasic phosphate and 2.17 g of monobasic phosphate at pH 7.4.

Art Unit: 1655

It would have been obvious to one of ordinary skill in this art at the time the invention was made to provide a hydrogel composition with a phosphate buffer 125-500 mM as presently claimed in view of each of the above references because each of the references teach a hydrogel composition with the same components as claimed and a phosphate buffer of some sort at some concentration with different units than those presently claimed. One cannot positively distinguish the compositions of the references from that claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claimed in claim 1, "a phosphate buffer present at a concentration of between about 125 mM and about 500 mM" is unclear because one would not know what exactly is included in the buffer composition and so could not then determine the concentration of the buffer. In claim 1 line 3, "a hydrophilic compound capable of forming a gel" does not positively state what the compound does. "Which forms a gel" is suggested. In claim 9 "e-beam" should be spelled out in the first occurrence in the claims.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim (6,816,742, 6,587,705) teach a biosensor.

Burson (6,902,905, US 2003/0199745 A1)) teach glucose measuring with a hydrogel.

Abraham (WO 97/02811) teaches a hydrogel with 0.5% phosphate buffer.

Ackerman (ACS Symposium) teaches glucose monitoring with a hydrogel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Gitomer whose telephone number is (571) 272-0916. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ralph Gitomer Primary Examiner Art Unit 1655 Art Unit: 1655

Applicant's election without traverse of Group I, claims 1-21, in the reply filed on 1/6/06 is acknowledged. The IDS received 10/17/03 has been considered. Please inform the examiner of any related applications, pending, allowed or abandoned.

A reading of the specification reveals the point of novelty of the hydrogel resides in a high concentration of the phosphate buffer.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Burson, Burson and Abraham.

Page 3

Each of the references teach sufficient phosphate buffer to maintain the desired pH range of 6-8. The present claims include no functional limitations regarding the concentration of the phosphate other than the buffer as a whole has a concentration range of 125-500 mM in the final composition.

Burson (6,615,078) entitled "Methods and Devices for Removing Interfering Species" teaches in column 12 lines 42-56, a hydrogel containing phosphate buffer at a pH of 6-8. In column 17 lines 26-29, the gel contains sodium phosphate monobasic 2.07 wt%, sodium phosphate dibasic 0.20 wt%. Other similar amounts are shown in column 17. See the claims.

Burson (US 2005/0170448) entitled "Methods of Manufacturing Glucose Measuring Assemblies with Hydrogels" teaches on page 9 paragraph 96, gel containing 0.22 wt% sodium phosphate monobasic, 2.25 wt% sodium phosphate dibasic. Another formulation contains 0.32 wt% sodium phosphate monobasic, 2.07 wt% sodium phosphate dibasic. A third formulation contains 0.26 wt% sodium phosphate monobasic, 2.17 wt% sodium phosphate dibasic

Abraham (US 2004/0062759 A1) entitled "Hydrogel Formulations for Use in Electroosmotic Extraction and Detection of Glucose" teaches on page 10 Table 2 a hydrogel containing 0.5 wt% phosphate buffer. On page 11 Example 6 the gel contains 0.26 g sodium dibasic phosphate and 2.17 g of monobasic phosphate at pH 7.4.

It would have been obvious to one of ordinary skill in this art at the time the invention was made to provide a hydrogel composition with a phosphate buffer 125-500 mM as presently claimed in view of each of the above references because each of the references teach a hydrogel composition with the same components as claimed and a phosphate buffer of some sort at some concentration with different units than those presently claimed. One cannot positively distinguish the compositions of the references from that claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claimed in claim 1, "a phosphate buffer present at a concentration of between about 125 mM and about 500 mM" is unclear because one would not know what exactly is included in the buffer composition and so could not then determine the concentration of the buffer. In claim 1 line 3, "a hydrophilic compound capable of forming a gel" does not positively state what the compound does. "Which forms a gel" is suggested. In claim 9 "e-beam" should be spelled out in the first occurrence in the claims.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Art Unit: 1655

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Kim (6,816,742, 6,587,705) teach a biosensor.

Burson (6,902,905, US 2003/0199745 A1)) teach glucose measuring with a hydrogel.

Abraham (WO 97/02811) teaches a hydrogel with 0.5% phosphate buffer.

Ackerman (ACS Symposium) teaches glucose monitoring with a hydrogel.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ralph Gitomer whose telephone number is (571) 272-

0916. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Ralph Gitomer Primary Examiner

Melous

Art Unit 1655

RALPH GITOMER PRIMARY EXAMINER GROUP 1200

Page 5